

**Performance Based Contracting  
Candidate Evaluation Report  
Camp Bullis / Fort Sam Houston**

**1.0 Introduction**

The U.S. Army Environmental Center (USAEC) conducted a program review of the open sites under the Camp Bullis and Fort Sam Houston Installation Restoration Programs (IRPs) on 26-27 October 2004. The purpose of this review was to present and discuss the Army's Performance Based Contracting (PBC) Initiative with the project stakeholders; the Installation and the Texas Commission on Environmental Quality (TCEQ). Discussions focused on identification of current obstacles facing Camp Bullis and Fort Sam Houston in their quest to achieve environmental cleanup and/or regulatory closure of all of their sites. More specifically, the objectives of the review were to:

- 1) Provide an overview of PBC and the Army's FY05 goals to the project stakeholders;
- 2) Provide the PBC team with a brief history of the Installations, an overview of the regulatory requirements and remediation activities performed at the Installations, and the current status of remediation activities;
- 3) Address specific concerns raised by project stakeholders regarding appropriate involvement, Army decision making, and regulatory review required in the PBC planning and implementation process;
- 4) Determine the current action plans for open sites and potential paths forward to achieve Remedy in Place (RIP) or Response Complete (RC) at each site; and
- 5) Outline the future work planned and schedules for implementation.

During the review, discussions focused on all open Army Environmental Database-Restoration (AEDB-R) sites identified in the FY2004 Camp Bullis and Fort Sam Houston Installation Action Plans (IAPs), as well as several Military Munitions Response Program (MMRP) and Compliance Cleanup sites. In general, these discussions covered the planned path forward for each site, key uncertainties, and the execution status of each (i.e., where are they in the restoration process, what are the planned next steps, what work is under contract, what work is funded, how the existing contracts are managed/executed, etc.). The program review also included a site tour of open project sites.

The results of this review, including a list of sites, are captured in the Summary Table below.

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<b>Installations</b>	Camp Bullis and Fort Sam Houston, TX
<b>Open AEDB-R Sites</b>	<p><u>Camp Bullis</u></p> <ul style="list-style-type: none"> <li>• CB-08: Landfill 8 (SWMU 10)</li> </ul> <p><u>Fort Sam Houston</u></p> <ul style="list-style-type: none"> <li>• FTSH-26: Landfills 8A, 8B, 10 and 12</li> <li>• FTSH-29: Landfills 4A, 6, and 7</li> <li>• FTSH-30: Landfills 2, 3, 4B, and 5</li> </ul>
<b>Other Open Sites</b>	<p><u>Camp Bullis</u></p> <ul style="list-style-type: none"> <li>• 4 MMRP sites</li> <li>• Compliance Cleanup sites include SWMU 10 LFs and OB/OD</li> </ul> <p><u>Fort Sam Houston</u></p> <ul style="list-style-type: none"> <li>• 27 MMRP sites</li> <li>• 1 Compliance Cleanup site</li> </ul>
<b>Remaining Scope and Likely Path Forward for Open AEDB-R Sites</b>	<p><u>Camp Bullis</u></p> <ul style="list-style-type: none"> <li>• CB-08: Implement measures to divert flood water, implement measures to prevent human contact with exposed chemical agent identification set (CAIS) kits, and implement remedy for trichloroethylene (TCE) groundwater contamination.</li> <li>• Compliance Cleanup sites: The APAR for OB/OD is not scheduled to be completed until Sep 2007.</li> </ul> <p><u>Fort Sam Houston</u></p> <ul style="list-style-type: none"> <li>• All AEDB-R sites have groundwater monitoring data pending. If the results indicate a release above residential drinking water standards, it will be necessary to delineate the plume and possibly remediate. In addition, the following actions are anticipated: <ul style="list-style-type: none"> <li>○ Application of 2 feet of soil to cover medical waste – Landfills 2, 3, 4B, and 5 and LTM</li> <li>○ Armoring to stop undercutting by creek – Landfill 7</li> <li>○ Land use controls (LUC) under closure to industrial standard – Landfill 4A, 6, 7, and 8B and LTM</li> <li>○ No action– Landfills 8A (declassified) Landfills 10 and 12 (waste removed), NFA</li> </ul> </li> <li>• Compliance Cleanup site: Complete investigation (scheduled for 6/05)</li> </ul>
<b>Outstanding Issues/Items of Interest</b>	<p><u>Camp Bullis</u></p> <ol style="list-style-type: none"> <li>1. Camp Bullis has an active RCRA Part B permit for the open burning/open detonation (OB/OD) area. Therefore, there are RCRA closure implications; however, agreement has been reached to close all sites under the Texas Risk Reduction</li> </ol>

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	<p>Program (TRRP).</p> <ol style="list-style-type: none"><li>2. TCE contamination of the Edwards Aquifer, a Class 1, sole source aquifer, has been confirmed. There are no observations above MCLs to date in off-site wells.</li><li>3. Source investigations are limited due to the presence of CAIS kits in Landfill 8 and the associated safety considerations. The presence of these kits also limits remedial options.</li><li>4. Storm events have eroded away landfill cover and left CAIS kits exposed. The threat of overland runoff carrying the kits to the stream generates the need for some type of water diversion system.</li><li>5. A compliance plan is in place with the State, and while general in nature, will have to be complied with under any contract mechanism. Plan includes requirement for stage-based sampling that cannot be scheduled (i.e., sampling is required at a minimum stage in the stream flow and therefore is weather dependent).</li><li>6. Recent sampling of off-site wells resulted in finding of detectable perchlorate (tenths of ppb level) in private and public water wells.</li><li>7. OB/OD area is under RCRA permit and within an active range, so it cannot be closed in the near-term and there may be difficulties with characterizing the site for chemicals that can still be introduced with ongoing training or waste management activities. TCEQ has required completion of an assessment as part of the corrective action in accordance with Compliance Plan Provisions.</li><li>8. Landfill 8 is a high priority site and has a Defense Program Guidance (DPG) goal of 12/07. TCEQ has stated they cannot accept a Technical Impracticability (TI) waiver in a Class I aquifer and that the TI must be demonstrated. Schedule is further complicated by the need to conduct a modified ecological risk assessment.</li><li>9. The vegetation at Landfill 8 is habitat for the yellow-cheeked warbler, a rare and endangered species. The 9 acres of the landfill have been deemed a small fraction of the total and the U.S. Fish and Wildlife Service (USFWS) has agreed to a formula of four to one compensation for any habitat that is removed (Army creates four times as much habitat in another area of the installation).</li></ol>
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10. The conduit flow carrying TCE flows through caves with rare and endangered forms of cave life. Information is needed to determine the sensitivity of those species to TCE.

Fort Sam Houston

1. A recent round of ground water, surface water and sediment samples was taken to complete an Affected Property Assessment Report (APAR). Detection levels in past were not low enough to compare with current screening criteria, and there is a parallel effort to define background. Pending results (due out shortly and to be reported by April 2005) may identify groundwater plumes from various landfills. If so, this will result in the need to delineate the plume and possibly implement remedies. If present, groundwater releases may jeopardize current December 2005 completion date for characterization work and could alter the requirement for covers/caps at the implicated landfill.
2. Landfill 7 lies next to a creek. Sediment and surface water samples may exceed aquatic ecological impact screening criteria resulting in the need to move to a Tier 2 ecological risk assessment. This could hinder ability to meet the December 2005 deadline for completion of characterization since no biological sampling has been conducted.
3. Landfill 7 erosion is occurring on a very steep side of the fill that plunges straight down to the creek. The hillside is heavily vegetated and has visible construction debris such as concrete slabs that may be important elements for holding the slope. It will be difficult to stabilize the bank without damaging vegetation.
4. FTSH-30 has medical wastes at the surface including clearly recognizable syringes, medical equipment and gowns. These do not pose a CERCLA hazardous substance risk, but do require cover under Texas law. In addition, because of the potential for radioisotope use in medical applications, the current round of sampling included a scan for radioactive contaminants. Should radioactive contaminant release be confirmed, there is the potential for Nuclear Regulatory Commission (NRC) and Texas State requirements beyond current plans.
5. A new background study was performed and results are pending. Previous results were found to exceed screening criteria, but were thought to represent background rather than site-related releases.

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	<p>6. Landfill 8B is thought to have unexploded ordnance (UXO) present. The current plan is to not address these through any measures other than access restrictions until the MMRP evaluation is performed.</p> <p>7. Landfills 10 &amp; 12 were exhumed to make room for expansion of the Veterans Administration (VA) cemetery. If groundwater results prompt TCEQ to require continual monitoring, it is unclear whether the Army or the VA should perform the monitoring.</p> <p>8. There are five sites not listed in AEDB-R that may need some level of effort. Pershing Field has lead and other metals and will need further investigation, as it is being considered for development of housing. The acid tank at Bldg 2840, fire training Bldg 3826, hazardous waste storage Bldg 4226, and former medical waste incinerator Bldg 3824 are believed to require no further action, but TCEQ could ask for additional investigations.</p>
<b>Decision</b>	Some portion of the Camp Bullis and Fort Sam Houston IAP sites will be selected for a PBC in FY05.